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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,708	01/15/2002	Shawn Kathol	01PS009/KE	3885
7590 04/07/2006				
Kyle Eppelle Rockwell Collins, Inc. M/S 124-323 400 Collins Rd., NE Cedar Rapids, IA 52498			EXAMINER LEZAK, ARRIENNE M	
			ART UNIT 2143	PAPER NUMBER

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/047,708

Applicant(s)

KATHOL, SHAWN

Examiner

Arrienne M. Lezak

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Examiner notes that Claim 1 has been amended, and no claims have been cancelled or newly added since issuance of the prior Office Action. Claims not explicitly addressed herein are found to be addressed within prior Office Action dated 7 October 2005 as reiterated herein below.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of US Patent US 6,249,913 B1 to Galipeau in view of US Patent 5,973,722 to Wakai.

3. Regarding Claims 1, 6-10 & 15-20, Galipeau discloses a system, method and apparatus for providing data to passengers on an aircraft, (Abstract; Col. 1, lines 17-19; & Claims 1-39), comprising the steps of:

- attaching an airborne server to a first digital, (Ethernet – per pending Claims 7 & 16), network, (Figs. 11(a)-(b), 12; Col. 7, lines 19-27; & Col. 11, lines 48-50);

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- directing data from the airborne server to the [first] digital network, (Col. 2, lines 56-67; Col. 3, lines 1-18; Col. 6, lines 63-67; & Col. 7, lines 1-32);
- converting the [first] digital network to a radio frequency distribution medium inclusive of a data modulated carrier signal, (Col. 2, lines 56-67; Col. 3, lines 1-18; Col. 6, lines 63-67; & Col. 7, lines 1-32), (DOCSIS compliant signal – per pending Claims 6 & 17), via a, (DOCSIS compliant – per pending Claims 15, 17 & 20), cable modem terminator for propagation of the signal throughout the aircraft, (Figs. 1 & 2; Col. 6, lines 63-67 & Col. 7, lines 1-32), (Examiner notes that it would have been obvious for the data network interface and cable to support the Data Over Cable Service Interface Specification, (DOCSIS) compliant modulated signal as the DOCSIS was well-known at the time of invention by Applicant as defining interface requirements for cable modems involved in high-speed data distribution over cable system networks. Moreover, Galipeau discloses the Aeronautical Radio, Inc., (ARINC), standards produced by the Airlines Electronic Engineering Committee, (AEEC), which encompass entertainment and communication standards, (Figs. 10(a)-(o)), and which standards would obviously include the standard defining cable interface requirements. Additionally, Examiner notes that the seat-to-seat cable, (Fig. 2 & Col. 4, lines 12-52), and integrated seat box capable of data conversion, (Figs. 4 & 5; Col. 3, lines 1-4), clearly and obviously reads upon Applicant's Radio Frequency (RF) distribution

- system comprising a means for data conversion/modulation over a wire-based cable);
- converting and transmitting the radio frequency distribution medium, (DOCSIS compliant signal – per pending Claim 8), to one or more [secondary] digital, (Ethernet – per pending Claims 9 & 18), networks via cable modem extraction of digital data from the signal, (Figs. 11(a)-(b) & 12; Col. 2, lines 56-67; Col. 3, lines 1-18; Col. 6, lines 63-67; & Col. 7, lines 1-32); and
- attaching an aircraft integral device to one of the [secondary] digital networks, (Figs 6(a)-(b), 7 & 8 7 Col. 10, lines 4-9).

4. Examiner notes that Galipeau does not specifically mention the use of a first and second digital network; however, Examiner additionally notes that Applicant defines the first network within the head end and the second network as within the seat box, (Applicant's Figs. 3-6), wherein Applicant's inventive aspect relies heavily upon the cable used, which cable provides for the combination of the passenger LAN with the RF distribution system, lessening the amount of heavy wire utilized, (Applicant's specification – p.4). Thus, Examiner finds that Galipeau obviously reads upon Applicant's first digital network/head end, (Fig. 9), and second digital network/seat box, (Fig. 5), and the integrated cable, (Fig. 2). That said, Examiner additionally provides the Wakai reference, which specifically enumerates the first and second digital networks and the conversion/transportation of data there between, (Wakai - Abstract; Fig. 1; Col. 8, lines 39-48). It would have been obvious to one of ordinary skill in the art at the time

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of invention by Applicant to incorporate the Wakai first and second digital networks into the Galipeau aircraft management system as noted within Galipeau which enumerates a need for an aircraft management system with sufficient flexibility to support and integrate the entertainment, power and data needs of commercial aircraft passengers, (Galipeau – Col. 2, lines 49-53), wherein Galipeau and Wakai both enumerate the head end and seat box units, and wherein utilization of the Galipeau integrated cable within the Wakai system would serve to create an lighter in-flight entertainment system, (Wakai – Col. 2, lines 65-67). Thus, Claims 1, 6-10 & 15-20 are found to be unpatentable over extensive consideration of the combined teachings of Galipeau and Wakai.

5. Regarding Claims 2 & 11, Galipeau in view of Wakai is relied on for those teachings disclosed herein. Galipeau additionally teaches allowing passengers to attach personal electronic devices to one of the [secondary] digital networks, (Col. 10, lines 4-9). Thus, Claims 2 & 11 are found to be unpatentable over extensive consideration of the combined teachings of Galipeau and Wakai.

6. Regarding Claims 3 & 12, Galipeau in view of Wakai is relied on for those teachings disclosed herein. Galipeau additionally teaches receiving network requests from the personal electronic devices and selectively redirecting network requests to the airborne server, (Figs. 11(a)-(b) & 12 & Cols. 10-12). Thus, Claims 3 & 12 are found to be unpatentable over extensive consideration of the combined teachings of Galipeau and Wakai.

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7. Regarding Claims 4 & 13, Galipeau in view of Wakai is relied on for those teachings disclosed herein. Galipeau additionally teaches examining the destination address comprising the network request, routing the network request to the airborne server if the personal electronic device has not registered for off-aircraft services; and routing the network request to a communications unit if the personal electronic device has registered for off-aircraft service, (Figs. 11(a)-(b) & 12 & Cols. 10-12), (Examiner notes that Galipeau clearly teaches both on-aircraft and off-aircraft communication wherein it would have been obvious not to transmit a passenger request for off-aircraft communications wherein said passenger had not registered for the same. Additionally, Galipeau provides for authentication and collection of fees concerning off-aircraft communication, (Col. 12, lines 37-44). Thus, Claims 4 & 13 are found to be unpatentable over extensive consideration of the combined teachings of Galipeau and Wakai.

8. Regarding Claims 5 & 14, Galipeau in view of Wakai is relied on for those teachings disclosed herein. Galipeau additionally teaches storing entertainment content on the airborne server, directing the entertainment content to the [first] digital network, receiving the entertainment content in aircraft integral devices or personal electronic devices attached to one of the [secondary] digital networks, (Col. 1, lines 53-65; Col. 7, lines 19-27 & Col. 10, lines 3-9). Thus, Claims 5 & 14 are found to be unpatentable over extensive consideration of the combined teachings of Galipeau and Wakai.

Response to Arguments

9. Applicant's arguments filed 6 January 2006, have been fully considered but they are not persuasive. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made.

10. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner finds that the combined teachings of the prior art references do clearly and obviously read upon Applicant's claims, as written, in their entirety. Additionally, Examiner notes that Galipeau clearly teaches multi-channel audio transmissions, (Galipeau – Col. 1, lines 39-66), wherein Examiner finds that the transmission of audio information over radio frequency channels within an aircraft was well known at the time of invention by Applicant, (please see the Oxman '200 patent noted herein below as art not relied upon). Moreover, Examiner notes that in defining "radio", Newton's Telecom Dictionary, (18th Ed. – Harry Newton, CMP Books), states the following:

"A typical radio-communication system has two main components, a transmitter and a receiver. The transmitter generates electrical oscillations at a radio frequency called the carrier frequency. Either the amplitude or the frequency itself may be modulated to vary the carrier wave."

Thus, Examiner finds that a "radio frequency distribution medium including a data modulated carrier signal" would be obvious, if not inherent, to an audio transmission via radio frequency channels.

11. Thus, Examiner has addressed Applicant's Amendment, and has further rejected all claims, as noted herein above. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US Patent US 6,757,712 B1 to Bastian; and
US Patent 4,352,200 to Oxman.

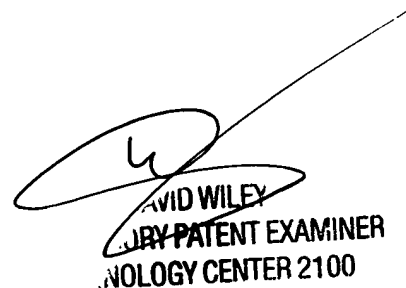
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (571)-272-3916. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571)-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Arrienne M. Lezak
Examiner
Art Unit 2143

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